

Regional HIV/AIDS Epidemiologic Profile of Essex County, Massachusetts: 2013

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2012: Essex County, Massachusetts²

	N	%
People Living with HIV/AIDS	1,552	61%
People Reported with HIV or AIDS who are Deceased	1,003	39%
Total Number of People Reported with HIV Infection or AIDS	2,555	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12¹: Essex County, Massachusetts²

Average annual HIV diagnosis rate from 2009–2011	Average rate per 100,000	Average annual number of HIV diagnoses
Essex County, MA	7.6	56.3
Massachusetts Total	10.3	664.7

HIV/AIDS prevalence rate on 12/31/12	Rate per 100,000	Number of people living with HIV/AIDS
Essex County, MA	208.8	1,552
Massachusetts Total	277.5	18,170

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2002–2011, Essex County, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2002	1,122	34	88
2003	1,172	34	84
2004	1,226	22	76
2005	1,278	26	78
2006	1,314	26	62
2007	1,340	33	59
2008	1,392	14	66
2009	1,427	22	57
2010	1,462	27	62
2011	1,489	23	50

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 4. People diagnosed with HIV infection from 2009–2011¹ and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Essex County, Massachusetts²

HIV Infection Diagnoses			PLWHA	
Gender:	N	%	N	%
Male	116	69%	1,023	66%
Female	53	31%	529	34%
Place of Birth:	N	%	N	%
US	80	47%	927	60%
Puerto Rico/US Dependency ³	18	11%	237	15%
Non-US	71	42%	388	25%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	53	31%	692	45%
Black (non-Hispanic)	32	19%	263	17%
Hispanic/Latino	78	46%	558	36%
Asian/Pacific Islander	6	4%	30	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	54	32%	467	30%
Injection Drug Use (IDU)	13	8%	291	19%
MSM/IDU	-- ⁷	-- ⁷	45	3%
Heterosexual Sex	29	17%	278	18%
Other	-- ⁷	-- ⁷	42	3%
Total Undetermined	69	41%	429	28%
• Presumed Heterosexual Sex ⁴	19	11%	153	10%
• Undetermined ⁵	50	30%	276	18%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2012	
Under 13	-- ⁷	-- ⁷	-- ⁷	-- ⁷
13 to 19	-- ⁷	-- ⁷	-- ⁷	-- ⁷
20 to 24	13	8%	34	2%
25 to 29	18	11%	40	3%
30 to 34	24	14%	77	5%
35 to 39	23	14%	123	8%
40 to 44	28	17%	164	11%
45 to 49	22	13%	311	20%
50 to 54	19	11%	327	21%
55 to 59	8	5%	239	15%
60+	10	6%	221	14%
Total⁶	169	100%	1,552	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁷ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Essex County, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	555	54%	137	26%
Black (non-Hispanic)	132	13%	131	25%
Hispanic/Latino	313	31%	245	46%
Asian/Pacific Islander	18	2%	12	2%
Total²	1,023	100%	529	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Essex County, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	467	46%	N/A	N/A
Injection drug use (IDU)	182	18%	109	21%
MSM/IDU	45	4%	N/A	N/A
Heterosexual sex	73	7%	205	39%
Other	24	2%	18	3%
Total Undetermined	232	23%	197	37%
• Presumed heterosexual sex ²	N/A	N/A	153	29%
• Undetermined ³	232	23%	44	8%
Total	1,023	100%	529	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

	Male		Female		Total
	N	%	N	%	
2002	61	69%	27	31%	88
2003	50	60%	34	40%	84
2004	46	61%	30	39%	76
2005	47	60%	31	40%	78
2006	40	65%	22	35%	62
2007	34	58%	25	42%	59
2008	43	65%	23	35%	66
2009	37	65%	20	35%	57
2010	43	69%	19	31%	62
2011	36	72%	14	28%	50

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2002	32	36%	19	22%	34	39%	88
2003	29	35%	19	23%	36	43%	84
2004	28	37%	16	21%	31	41%	76
2005	28	36%	19	24%	29	37%	78
2006	25	40%	14	23%	23	37%	62
2007	23	39%	9	15%	26	44%	59
2008	22	33%	14	21%	27	41%	66
2009	18	32%	12	21%	26	46%	57
2010	23	37%	13	21%	22	35%	62
2011	12	24%	7	14%	30	60%	50

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2002	44	50%	15	17%	29	33%	88
2003	42	50%	14	17%	28	33%	84
2004	44	58%	9	12%	23	30%	76
2005	40	51%	7	9%	31	40%	78
2006	35	56%	7	11%	20	32%	62
2007	31	53%	9	15%	19	32%	59
2008	38	58%	7	11%	21	32%	66
2009	29	51%	6	11%	22	39%	57
2010	29	47%	8	13%	25	40%	62
2011	-- ⁴	-- ⁴	-- ⁴	-- ⁴	24	48%	50

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

⁴ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	23	26%	17	19%	-- ⁵	-- ⁵	9	10%	-- ⁵	-- ⁵	14	16%	24	27%	88
2003	21	25%	19	23%	-- ⁵	-- ⁵	12	14%	-- ⁵	-- ⁵	9	11%	21	25%	84
2004	18	24%	12	16%	-- ⁵	-- ⁵	11	14%	-- ⁵	-- ⁵	12	16%	20	26%	76
2005	21	27%	6	8%	-- ⁵	-- ⁵	13	17%	-- ⁵	-- ⁵	14	18%	21	27%	78
2006	18	29%	8	13%	-- ⁵	-- ⁵	14	23%	-- ⁵	-- ⁵	8	13%	13	21%	62
2007	15	25%	11	19%	-- ⁵	-- ⁵	10	17%	-- ⁵	-- ⁵	8	14%	14	24%	59
2008	21	32%	5	8%	-- ⁵	-- ⁵	13	20%	-- ⁵	-- ⁵	8	12%	17	26%	66
2009	21	37%	-- ⁵	-- ⁵	0	0%	9	16%	-- ⁵	-- ⁵	9	16%	14	25%	57
2010	19	31%	-- ⁵	-- ⁵	-- ⁵	-- ⁵	13	21%	0	0%	5	8%	20	32%	62
2011	14	28%	6	12%	-- ⁵	-- ⁵	7	14%	-- ⁵	-- ⁵	5	10%	16	32%	50

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	35	88	40%
2003	27	84	32%
2004	42	76	55%
2005	23	78	29%
2006	22	62	35%
2007	22	59	37%
2008	21	66	32%
2009	21	57	37%
2010	25	62	40%
2011	23	50	46%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Essex County, Massachusetts,¹ 2009–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	49	116	42%
Female	20	53	38%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	20	53	38%
Black (non-Hispanic)	10	32	31%
Hispanic/Latino	34	78	44%
Asian/Pacific Islander	5	6	83%
Other/Undetermined ³	0	0	0%
Place of Birth:	N	N	%
US	31	80	39%
Puerto Rico/US Dependencies ⁴	9	18	50%
Non-US	29	71	41%
Total	69	169	41%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13